

REMARKS

Claims 1 - 23 remain active in this application. Claim 1 has been amended to emphasize novel features of the invention already recited therein. No new matter has been introduced into the application. The withdrawal of previously asserted grounds of rejection is noted with appreciation.

Claims 1, 2, 4 - 6, 12, 16 - 18, 20 and 22 - 23 have been rejected under 35 U.S.C. §103 as being unpatentable over Sullivan in view of Lo Galbo et al. Claims 7 - 11 and 13 - 14 have been rejected under 35 U.S.C. §103 as being unpatentable over Sullivan in view of Lo Galbo et al. and Chang et al. Claims 3, 19 and 21 have been rejected under 35 U.S.C. §103 as being unpatentable over Sullivan in view of Lo Galbo et al. and Ortel. These grounds of rejection are respectfully traversed since the basic references to Sullivan and Lo Galbo do not contain the teachings or suggestions the Examiner attributes to them, are directed to different types of systems from the invention and each other having very different functions and thus fail to provide motivation for the modification of either and are improperly combined. These deficiencies of the basic combination of Sullivan and Lo Galbo are not mitigated by other references additionally applied by the Examiner.

As previously pointed out, the invention is an arrangement for upstream signaling over a cable communication system to indicate conditions at each of a large plurality of cable drops connected to a central facility. The system in accordance with the invention provides time-multiplexing of inputs from all cable drops *cyclically without commutation or other switching of the inputs from the respective cable drops* (which would be impossible in a broadcast cable communication system without some other complex arrangement for

allowing separation of signals, in any case, because of the mixing of the upstream signaling which would occur) and, moreover, does so with very wide synchronization margins so that while the respective time bases at the central facility and the respective termination sections operate synchronously, there is no need for precise synchronization (which would be difficult over a widely distributed system where signal propagation delays vary widely) and also allows doing so with fungible and commercially available components such as dual-tone generators ubiquitous in telephone systems and handsets.

In sharp contrast therewith, while Sullivan indicates applicability to "determining the condition of a radio or television receiver at a remote station" (column 1, lines 21 - 22), it approaches that function as an interrogator/responder system in which interrogation tones are sequentially sent to groups of receivers of sequentially diminishing size or numbers until a desired sub-group or individual station is *selected and activated* (see column 2, lines 8 - 51). The selected and activated stations then modify the interrogation tones which are *returned* to the central facility as described in the passage of columns 16 - 18 on which the Examiner relies. Also, while Sullivan contemplates that all stations will be *eventually* interrogated, there is no order or use of a particular time slot defined by a time base by a given station but only an arbitrary period following interrogation. In other words, Sullivan may interrogate one given station a plurality of time between successive interrogations of another given station and no information concerning the identity of a station is carried by the timing of the upstream signal but, rather, is contained in the modified (downstream) interrogation signal which is returned since only certain modifications are allowed (again, see the cited passage of columns 16 - 18).

Therefore, it is seen that Sullivan has little more in common with the present invention, as claimed, than the use of tones for signaling. Addition of time slots as defined by time bases at termination sections and a central facility, particularly for time-multiplexing or identification of stations at which a signal may originate would have no utility in Sullivan or any other interrogator/responder system and proposing any modification to do so would be without motivation and improper under the precedent of *In re Gordon*, 221 USPQ 1125 (Fed. Circ., 1984) since it would preclude operation of the system of Sullivan in the manner intended. Further, *Lo Galbo et al.* does not provide such a time base answering the recitations of the claims.

Specifically, *Lo Galbo et al.* is directed to an arrangement for measuring channel delay and, while it provides time bases at both ends of a communication link which are principally (and closely) synchronized by a common timing source such as a GPS system. One station determines a time T_1 and simultaneously sends a message containing T_1 information to another station which determines the time T_2 as of the time of receipt of that message, determines the time difference and reports it. There does not appear to be any determination or definition of time slots or decoding in accordance with a time slot as recited in the claims as rejected, much less time slots associated with respective signaling stations or for identification thereof. Moreover, *Lo Galbo et al.* does not provide any evidence of a level of ordinary skill in the art which would support a conclusion of obviousness for any modification of Sullivan and/or *Lo Galbo et al.* that would answer the recitations of the claims in regard to transmission or decoding in accordance with time slots defined by respective time bases. On the contrary *Lo Galbo* tends to teach away from the meritorious effects

of the present invention in that the synchronization of the time bases at the different stations is particularly critical while the arrangement of the present invention has the meritorious effect of reducing the criticality of exact synchronization during effective time-multiplexing by time slot assignment. Therefore, teachings and/or suggestions of Sullivan and Lo Galbo et al. cannot be properly combinable and, in any event, fall far short of answering the claim recitations and cannot support a *prima facie* demonstration of obviousness in regard to any claim in the application.

The abundantly evident deficiencies and impropriety of the combination of Sullivan and Lo Galbo et al. are not mitigated by the teachings, suggestions or evidence of a level of ordinary skill in the art to be found in Chang et al. or Ortel. Chang et al. provides time slots for upstream signaling but defines them in accordance with particular scan lines of the downstream signal. Moreover, even if Chang et al. taught time slots defined in accordance with respective time bases as claimed, there is no motivation for modification in combination with Sullivan and/or Lo Galbo et al. and proposal of any modification would be improper under *In re Gordon, supra*. Ortel is cited by the Examiner for teaching inclusion of a printer but the Examiner does not assert that Ortel mitigates any other deficiency of the basic (improper and insufficient) combination of Sullivan and Lo Galbo.

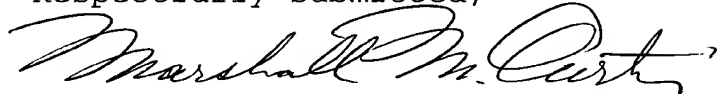
Accordingly, it is clearly seen that the Examiner has not made and cannot make a *prima facie* demonstration of the propriety of any asserted ground of rejection in regard to any claim in the application and the asserted grounds of rejection are clearly in error and untenable. Therefore, reconsideration and withdrawal thereof are respectfully requested.

Since all rejections, objections and requirements

contained in the outstanding official action have been fully answered and shown to be in error and/or inapplicable to the present claims, it is respectfully submitted that reconsideration is now in order under the provisions of 37 C.F.R. §1.111(b) and such reconsideration is respectfully requested. Upon reconsideration, it is also respectfully submitted that this application is in condition for allowance and such action is therefore respectfully requested.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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